

In the Claims:

Please cancel claims 1-10, 16 and 18. Please amend claims 11, 20, and 21. The claims are as follows:

1-10. (Canceled)

11. (Currently amended) A transport demultiplexor for receiving a transport stream, the transport demultiplexor comprising:

a) front end logic;

b) a packet buffer;

c) a video unloader;

d) a data unloader;

e) an audio unloader, and wherein said front end logic receives the transport stream and delivers the transport stream to the packet buffer, and wherein said packet buffer delivers selected transport stream video data to the video unloader and selected transport audio data to the audio unloader, and wherein the said packet buffer delivers other transport stream data to the data unloader for delivering to system memory; and

f) a string comparator, the string comparator including:

i) a compare register, the compare register storing at least one compare value filter;

ii) a masking register, the masking register designating at least a portion of the compare value filter;

09/660,867

2

iii) an address register; and

wherein the string comparator compares the other transport stream data from the data unloader to the designated at least a portion of the compare value filter and stores a destination address of the other transport stream data at the address register when the compared other transport stream data matches the designated at least a portion of the compare value filter,

wherein the other transport stream data comprises non-MPEG-2 data,

wherein the front end logic includes a bypassable synchronizer and bypassable packet parser, the bypassable packet parser receiving a first and second type of transport stream from the bypassable synchronizer,

wherein the bypassable synchronizer and the bypassable packet parser respectively synchronize and filter the first type transport stream data before passing the first type transport stream data to the packet buffer,

wherein the bypassable synchronizer and the bypassable packet parser deliver second type transport stream data to the packet buffer without synchronizing and filtering, respectively, the second type transport stream data,

wherein the first type transport stream data comprises MPEG-2 data,

wherein the second type transport stream data comprises non-MPEG-2 data,

wherein the bypassable packet parser comprises a packet identifier (PID) filter,

wherein the other transport stream data outputted by the data unloader has not been synchronized and filtered by the bypassable synchronizer and the bypassable packet parser, respectively, and is transmitted concurrently in real time from the data unloader to the system memory and to the string comparator.

12. (Original) The transport demultiplexor of claim 11 wherein the compare register receives the compare value filter from a system processor.

13. (Original) The transport demultiplexor of claim 11 wherein the compare register stores a plurality of compare value filters, with each of the compare value filters compared to system data corresponding to a different memory queue.

14. (Original) The transport demultiplexor of claim 11 wherein the masking register receives the at least one masking filter from a system processor.

15. (Original) The transport demultiplexor of claim 11 wherein the address register stores a plurality of destination addresses in a first-in-first-out buffer.

16. (Canceled)

17. (Original) The transport demultiplexor of claim 11 wherein the data unloader includes a queue control, said queue control controlling storage location of said first transport stream system data in system memory.

18. (Canceled) The transport demultiplexor of claim 11 wherein the transport stream comprises an MPEG-2 transport stream.

19. (Original) The transport demultiplexor of claim 11 wherein the string comparator notifies a system processor when the compared other transport stream data matches the designated at least a portion of the compare value filter.

20. (Currently amended) A transport demultiplexor for receiving a MPEG-2 transport stream, the transport demultiplexor comprising:

a) a packet buffer;

b) front end logic, the front end logic selectively receiving the a MPEG-2 transport stream and an alternative transport stream, the alternative transport stream comprising non-MPEG-2 data, the front end logic comprising:

- i) a bypassable synchronizer, the bypassable synchronizer receiving and synchronizing the MPEG-2 transport stream;
- ii) a bypassable packet parser, the bypassable packet parser selectively receiving the MPEG-2 transport stream, wherein the packet parser retrieves identification information from transport stream packets, and wherein the packet parser retrieves identification information from the MPEG-2 transport stream and appends packet identification from the retrieved identification information to the MPEG-2 transport packets, the appended packet identification used identify the MPEG-2 transport stream packets as video packets, audio packets or system data packets, wherein the bypassable synchronizer and the bypassable packet parser deliver the alternative transport stream to the packet buffer without synchronizing and filtering, respectively, the non-MPEG-2 data of the alternative transport stream.

and wherein the bypassable packet parser comprises a packet identifier (PID) filter;

c) a video unloader, the video unloader receiving selected MPEG-2 video packets from the packet buffer;

d) an audio unloader, the audio unloader receiving selected MPEG-2 audio packets from the packet buffer;

e) a data unloader, the data unloader receiving MPEG-2 system data packets and other transport stream data packets, the data unloader delivering the MPEG-2 system data packets and other transport stream data packets to system memory as system memory data for processing; and

f) a string comparator, the string comparator including:

i) a compare register, the compare register storing at least one compare value filter;

ii) a masking register, the masking register designating at least a portion of the compare value filter;

iii) an address register; and

wherein the string comparator compares system memory data from the data unloader to the designated at least a portion of the compare value filter and stores a destination address of the system memory data at the address register when the compared system memory data matches the designated at least a portion of the compare value filter, and

wherein non-MPEG-2 data outputted by the data unloader is transmitted concurrently in

real time to the system memory and to the string comparator.

21. (Currently amended) The transport demultiplexor of claim 20, wherein the bypassable synchronizer and the bypassable packet parser forward the alternative transport stream to the packet buffer without performing synchronization or filtering of the alternative transport stream; said transport demultiplexor further comprising:

means for loading the alternative transport stream into the system memory from the packet buffer; and

means for performing real time filtering of the alternative transport stream in the packet buffer before loading the alternative transport stream into the system memory from the packet buffer.